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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ANTOON JOHANNES VAN ROSSUM,
and ANTONIUS FRANCISCUS BERTELS

Appeal 2009-009810
Application 10/815,942
Technology Center 1700

Decided: January 22, 2010

Before: CATHERINE Q. TIMM, MICHAEL P. COLAIANNI, and JEFFREY B. ROBERTSON, *Administrative Patent Judges*.

TIMM, *Administrative Patent Judge*.

DECISION ON APPEAL

I. STATEMENT OF CASE

Appellants appeal under 35 U.S.C. § 134 from the Examiner's decision to reject claims 29-41. We have jurisdiction under 35 U.S.C. § 6(b).

We REVERSE.

Appellants' invention relates to a greenhouse having a removable protective coating. Claim 29 is illustrative:

> 29. A greenhouse comprising: a substantially transparent surface; a protective coating comprising a pigment and a binder, the binder comprising a vinyl polymer based on one or more of the monomers selected from the group consisting of methyl methacrylate, butyl acrylate, 2-ethylhexyl acrylate, ethyl acrylate, styrene, methacrylic acid and acrylic acid, having a weight-average molecular weight of 10,000-100,000 and an acid value of 40-250, wherein the binder has a polydispersity of 2-6 and a glass transition temperature of 10 to 60° C, and wherein the protective coating is adhered to said substantially transparent surface and the protective coating is removable with a removing agent comprising a base and a complex former.

The Examiner maintains, and Appellants seek review, of the following rejections:

1. The rejection of claims 29-37 and 39-41 under 35 U.S.C. § 103(a) as unpatentable over van Rossum (EP 0 478 067 B1, pub. Apr. 1, 1992) in view of Yoshida (US 5,574,117, granted Nov. 12, 1996);
2. The rejection of claim 38 under 35 U.S.C. § 103(a) as unpatentable over van Rossum and Yoshida, and further in view of Wieczorrek (US 4,409,266, granted Oct. 11, 1983);
3. The rejection of claims 29-37, 40, and 41 under 35 U.S.C. § 103(a) as unpatentable over Sato (JP 51127181, pub. May 5, 1976) in view of Yoshida; and
4. The rejection of claim 38 under 35 U.S.C. § 103(a) as unpatentable over Sato and Yoshida, and further in view of Wieczorrek.

II. DISPOSITIVE ISSUE

Have Appellants established that the Examiner reversibly erred in finding that the prior art suggests using the acrylic polymer of Yoshida as a binder in a protective coating for use on the surface of a greenhouse and optimizing the properties of the acrylic polymer for that use?

We answer this question in the affirmative.

III. FINDINGS OF FACT

The following Findings of Fact (FF) are particularly relevant for disposing of the issue on appeal.

As found by the Examiner, van Rossum teaches a removable protective coating on a transparent surface of a greenhouse. The Examiner does not dispute that the binder of van Rossum's coating is different from that claimed. Instead, the Examiner finds that Yoshida teaches that it is known to use an acrylic polymer with properties overlapping those claimed in a removable protective coating, relying upon column 1, lines 12-15 and column 8, lines 25-27 of Yoshida as teaching the use of the acrylic polymer in a removable protective coating. The Examiner concludes that it would have been obvious to one of ordinary skill in the art to optimize the properties of the polymer where the general conditions of a claim are disclosed in the prior art. (Ans. 4.)

The portion of Yoshida's column 1 relied upon by the Examiner for a teaching of a removable protective coating states that:

> The present invention relates to an acrylic polymer used for acrylic rubber, a pressure-sensitive adhesive, an alkali-

> soluble adhesive, an alkali-soluble film, an alkali-soluble injection molding, water ink, a coating, a low profile agent, a dispersing agent, a fiber-processing agent, a sealing agent, a vibration-controlling material, a resin improver, an asphalt additive and so forth, and also relates to use of the polymer and a process for producing it.

(Yoshida, col. 1, ll. 12-19.)

Yoshida characterizes the acrylic polymers as containing an acrylic acid-based monomer in its structure and having a number-average molecular weight of from 1,000 to 1,000,000, a glass transition temperature of -80 °C or higher and a molecular weight distribution (Mw/Mn) of 5 or less (Yoshida, col. 4, ll. 9-17). More specific ranges for these properties are recited for the various embodiments such as for the acrylic rubber, pressure-sensitive adhesive, alkali-soluble adhesive, alkali-soluble film, etc. (*See*, *e.g.*, Yoshida, col. 4, ll. 36-45 for acrylic rubber; col. 5, ll. 45-52 for pressure-sensitive adhesive; col. 6, ll. 46-53 for alkali-soluble adhesive; col. 7, ll. 41-48 for alkali-soluble film.)

The portion of Yoshida's column 8 relied upon by the Examiner for a teaching of the removable protective coating states that:

> The thus-obtained alkali-soluble film, compared with conventional ones, has good molding performance and high strength, and also, is superior in blocking resistance and soluble in an alkali. Therefore, the film is useful as a packaging film, a base material of labels, and in addition, as a separating film in a case of storing specific substances in condition of separating each other for a short period of time. For practical examples the separating film there are cited a Film [sic, film] for agricultural use, packaging of the washing, packaging of food for animals, a temporarily protecting film and so forth.

(Yoshida, col. 8, ll. 17-27.)

The separating films (including the "film for agricultural use" and "temporarily protecting film") are molded films, not coatings (Yoshida, col. 8, ll. 22-27; *see also* Yoshida, col. 52, ll. 41-44; col. 53, ll. 58-62 (exemplifying blow molded and extruded "temporary protecting film")).

The Examiner does not cite a portion of Yoshida disclosing the use of the acrylic polymer as a binder in a coating, nor cite any portion providing guidance on how to formulate a coating binder for use in a protective coating (*see* Ans. generally).

Sato describes a light selective transmitting film having a thin film of metal oxide deposited on a base material film of polyalkyl methacrylate copolymer (Sato (as translated), 4, first full paragraph). The film is used as a greenhouse film for agriculture (Sato, paragraph bridging pages 8 and 9). The film is oriented so the thin film metal oxide layer is the surface facing the plants (*Id.*).

IV. PRINCIPLES OF LAW

The test for obviousness is what the combined teachings of the references would have suggested to one of ordinary skill in the art. *See In re Young,* 927 F.2d 588, 591 (Fed. Cir. 1991); *In re Keller,* 642 F.2d 413, 425 (CCPA 1981). There must be some evidence that those of ordinary skill in the art understood that a given selection would be successful and/or that the parameters at issue where known result effective parameters for the particular use. *In re O'Farrell*, 853 F.2d 894, 903 (Fed. Cir. 1988); *In re Antonie*, 559 F.2d 618, 620 (CCPA 1977).

V. ANALYSIS

A. Rejection over van Rossum and Yoshida

The evidence does not support the Examiner's finding that Yoshida describes using Yoshida's acrylic polymer in a removable protective coating. The portions of Yoshida relied upon by the Examiner are directed to an alkali-soluble film molded by, for instance, blow molding or extrusion. Such a film is used in packages, labels, and films separating one substance from another in packages. The alkali-soluble film of Yoshida is clearly different than a binder of a coating.

While it may have been obvious to one of ordinary skill in the art to optimize the properties of the acrylic polymer of Yoshida for the uses disclosed in the Yoshida reference, the Examiner has not provided evidence that Yoshida provides the guidance needed by one of ordinary skill in the art to optimize the properties of Yoshida's acrylic polymer, much less the properties recited in claim 29, for use as a binder in the coating of van Rossum. Even if the evidence supported a finding of optimization for the greenhouse coating use, we cannot say that the evidence supports a finding that such optimization would lead to values within the claimed ranges. The evidence of such is lacking.

B. Rejection over Sato and Yoshida

Sato teaches an agricultural film with a base film of polyalkyl methacrylate copolymer and a thin film of metal oxide deposited thereon. Sato does not disclose a binder as required by claim 29. The polyalkyl methacrylate copolymer of Sato is a film, not the binder of a coating.

The Examiner finds that Yoshida teaches an alkali soluble film including an acrylic polymer as a binder (Ans. 7). But Yoshida does not support such a finding. Rather, Yoshida teaches molding, such as by blow molding or extruding, an acrylic polymer film. Such a molded film is not a binder within a coating.

It is not clear how the Examiner determines that it would have been obvious to select either of the film-forming polymers of the references for use in a binder of a coating (Ans. 7). The Examiner has not provided a convincing rationale, based on facts appropriately found (Ans. 7).

Moreover, we agree with Appellants that, as the polyalkyl methacrylate copolymer film is the base film of Sato's light selective transmitting film and the metal oxide layer is only a thin film deposited on the base film, the polyalkyl methacrylate copolymer film is not "removable" within the meaning of claim 29 (Br. 15). Removing the film would destroy the base upon which the metal oxide film is deposited such that the thin metal oxide film would lose its structural integrity. The film is not "removable" if removing it destroys the entire structure of the article.

VI. CONCLUSION

Appellants have established that the Examiner reversibly erred in finding that the prior art suggests using the acrylic polymer of Yoshida as a binder in a protective coating for use on the surface of a greenhouse and optimizing the properties of the binder for that use.

Because the defects in the Examiner's reasoning render all of the rejections deficient, we do not sustain any of the Examiner's rejections.

VII. DECISION

The decision of the Examiner is reversed.

REVERSED

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